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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,736	02/24/2004	James H. Shaffner	B-4958NP 621373-2	2748
36716	7590	09/12/2006	EXAMINER	
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			GLENN, KIMBERLY E	
			ART UNIT	PAPER NUMBER

2817

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/786,736	SHAFFNER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kimberly E. Glenn	2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-24 is/are allowed.
- 6) ☒ Claim(s) 1,7-12 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 13-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/13/06 5/15/06</u> <u>4/25/06</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7-12 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Larson US Patent 5,121,089.

Larson disclose in figure 4 and 5, a micro machined switch disposed on substrate 12. Larson states in column 3; lines 34-27, "As is conventional with strip lines in microwave integrated circuit technology a ground plane (not shown) can be included to enable the switch to operate more effectively at higher frequencies." The switch comprises a switch blade 89, a transmission line segments (110) and a plurality of control pads (118 119 120 121). The switch blade 89 rotates between the plurality transmission line segments (110 112 114 116) based on the control signals applied to the control pads (118 119 120 121). The transmission line segment 110 has a single protuberance at one end which makes contact with the switch blade. The protuberance has a width that is greater than the other end of the transmission line segment 110. The center portion of the switch 87 is disposed on the substrate through boss portion while the end portion of the switch are free to rotate to make connected with the plurality of transmission line segments. The protuberance extends away from the transmission line segment as angle other than zero degree or ninety degree relative to the edge of

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the transmission line segment and is defined by a series of straight lines. The transmission line segment taken in conjunction with the ground plane will act as a parallel plate capacitor, which would inherently affect the impedance matching between the transmission line segment and the switch blade. The switch blade 89, the plurality of controls pads (118 119 120 121) and the plurality transmission line segments (110 112 114 116) will inherently have inductance. The switch blade, control pads and the transmission line segments taken in conjunction with the ground plane will form a capacitance. Therefore, since the prior art reference discloses the structure of the claimed apparatus, the prior art reference would inherently be capable of providing a return loss having a level greater than 20dB.

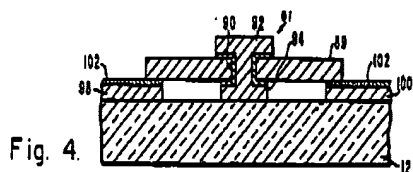
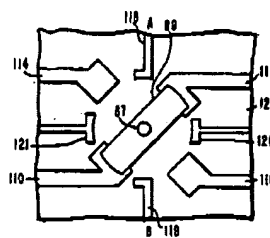


Fig. 5.



### ***Allowable Subject Matter***

Claims 22-24 are allowed.

Claims 2-6 and 13-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With regards to claims 2-6 and 13-18, the prior art of record does not disclose

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or fairly teach the protuberance having a tapered region that extends from a relatively narrow portion of the RF line to a relatively wide portion of the RF line, wherein the relatively narrow portion provides a means for conducting RF energy to and /or from the RF contact of the RF MEMS switch. With regards to claims 22-24, the prior art of record does not disclose or fairly teach the protuberance forming a PI network impedance matching circuit with the switch contacting bar.

### ***Response to Arguments***

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly E Glenn  
Examiner  
Art Unit 2817

20060831 keg

A handwritten signature in black ink, appearing to read 'Robert Pascal', with a long horizontal flourish extending to the right.

Robert Pascal  
Supervisory Patent Examiner  
Technology Center 2800